DOCUMENT RESUME

ED 481 404 EC 309 837

AUTHOR	Higbee, Thomas S.; Hager, Karen D.
TITLE	Positive Motivational Strategies for Children with Autism and Other Developmental Disabilities.
PUB DATE	2003-03-02
NOTE	5p.; In: Rural Survival. Proceedings of the Annual Conference of the American Council on Rural Special Education (ACRES) (23rd, Salt Lake City, Utah, March 20-22, 2003); see ED 476 123.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*Autism; Children; *Developmental Disabilities; Elementary Secondary Education; Motivation; *Positive Reinforcement; Severe Disabilities; Stimuli
IDENTIFIERS	Choice Behavior; *Preference Ranking

ABSTRACT

This paper explains the brief stimulus preference procedure (SPA), which is designed to identify efficiently the effective reinforcers for children with autism and other developmental disabilities. SPA involves presenting the child with four items he/she generally responds well to plus one new item. After allowing the child to pick his preferred item and briefly interact with it, the preferred item is removed and the child is asked to choose from the remaining items. The process is repeated until all items have been chosen. This allows for ranking of potential reinforcers. The paper offers suggestions for how many times to run the procedure, how to rank items, how to interpret the results, and when to run the procedure. A blank data sheet is attached. (DB)

Thomas S. Higbee and Karen D. Hager
Department of Special Education and Rehabilitation
Utah State University
2865 Old Main Hill
Logan, UT 84322-2865

POSITIVE MOTIVATIONAL STRATEGIES FOR CHILDREN WITH AUTISM AND OTHER DEVELOPMENTAL DISABILITIES

Identifying positive reinforcers is critical to the success of many educational practices including interventions designed to increase desirable behaviors and interventions designed to decrease undesirable behaviors. Thus there is a need for effective methods of identifying potential reinforcers for specific individuals. Stimulus preference assessment (SPA) is a systematic technology for predicting reinforcer effectiveness. This paper first reviews several specific types of stimulus preference assessments, and then presents detailed instructions for administration of the Brief Multiple-Stimulus Preference Assessment (Carr, Nicolson, & Higbee, 2000).

Pace, Ivancic, Edwards, Iwata, and Page (1985) investigated a method of identifying reinforcers for several individuals with profound mental retardation. The procedure developed by Pace et al. involved presenting a single stimulus to the individuals and measuring approach to the item. Each stimulus was presented several times and preference was determined by the percentage of times an item was approached. This procedure was successful at identifying reinforcers for individuals with severe disabilities, but tended to overestimate preference and did not provide a ranking of more to less preferred items.

Fisher and colleagues (1992) extended the procedure developed by Pace et al. (1985) by presenting stimuli in pairs (Paired Stimulus method) and measuring approach. In this "forced choice" method every item is paired with every other item, and the percentage of times an item is chosen when it is available is the measure of preference. This method is more precise than the single stimulus method. It allows the items to be ranked according to preference and accurately predicts preferred items. The amount of time required to complete preference assessment using this procedure, however, may make it impractical for use on a frequent basis.

As the technology of SPA continued to develop DeLeon and Iwata (1996) compared three methods of preference assessment: paired-stimulus, multiple-stimulus without replacement (MSWO), and multiple-stimulus with replacement. Their results indicated that the multiple-stimulus without replacement method produced rankings similar to those produced by the paired-stimulus method, but took only about half the time to administer. In an effort to further increase the efficiency of MSWO preference assessments, Carr, Nicolson, and Higbee (2000) studied reducing the number of stimulus presentations from five to three. They found the brief MSWO assessments could be completed in about five minutes, and were effective in predicting stimuli that act as reinforcers. Student preferences likely change over time, so it is important to have preference assessments that can be administered frequently to ensure the items offered as reinforcers are items the individual prefers. The more efficiently the assessment can be administered, the more feasible it is to assess individuals often, making it more likely that the items being offered to them are currently preferred items.

The procedures developed by Carr, Nicolson, & Higbee (2000) for running the Brief Stimulus Preference Assessment are presented below, along with a data collection sheet to be used with these procedures.

Procedures for Running the Brief Stimulus Preference Assessment
Carr, Nicolson, & Higbee (2000)

The following is an outline of a brief stimulus preference procedure (SPA). This is a SPA "without replacement" procedure. This means that once an item is selected, it is removed from the array and not replaced. Thus, there are initially five items available, then four, then three, and so on.

How to run the SPA:

1) Identify four items the student requests or generally responds to well plus one new item. If edibles are in the array, be sure to break them up into small bite size pieces before presenting them to the student. In the case of a

drink, present only a small amount in the cup so the student can drink this amount quickly and be finished with access to the drink.
2) Allow the student to briefly sample each item (eat or drink a small portion of edibles or briefly engage with non-edibles).
3) Place the items on the table with equal distance between them. The student should be seated in front of the table with easy access to all of the items.
4) Say, "Pick the one you want", to the student, and allow him/her to choose one item. If the student attempts to grab more than one item, block access to the other items. (You may have to be very quick in order to assess which item was chosen first and to prevent the student from getting any others). Write the number next to the item on the data sheet according to the order in which it was chosen (e.g., write a "1" next to soda if soda was chosen first).
5) Pull the table away, or otherwise prevent access to other items until the first item the student selected is either consumed (in the case of an edible) or until 10 seconds has passed (in the case of a tangible). After this period of time, remove the item from the student's hands and put it out of sight. Arrange the remaining four items as in step 2 and center them in front of the student.
6) Steps 3 and 4 will be repeated until all items have been selected and no items are left, or until the student does not select an item within 10 seconds. If the student fails to select an item within 10 seconds, score all of the remaining items as "5."

How many times to run the procedure:
1) As a rule, you should run the procedure 3 times. If you seem to be able to get reliable results running it one or two times, that's fine.

How to rank items:
1) Add the ranks for each item in columns 1, 2, and 3and record this number in the "Sum of 1, 2, & 3" column.
2) Rank the items based upon the numbers in the "Sum of 1, 2, & 3" column, with the smallest number being ranked #1, the second smallest ranked #2, etc.

What do the results mean?
1) The results of this procedure are of crucial importance to you as the teacher. As you know, when a student is not interested in the items you are trying to use as "reinforcers", his/her responding is poor. This procedure will help you to identify items that will function as reinforcers for the child. Research has shown that these items are more likely to serve as reinforcers than those that are chosen in a less formal way.
2) Use the top two (or maybe three) choices from the SPA as possible reinforcers for your session.

When to run this procedure:
1) Run this procedure before each teaching session.
2) Repeat this procedure even within your own session if you notice a significant drop in the student's rate of correct responding or if the student does not appear interested in the items you are currently providing as reinforcers.

Brief Preference Assessment Data Sheet (Carr, Nicolson, & Higbee; 2000)

Student:_____ Classroom: _____ Assessed By:_____

Date:_____ Time:_____

	Rank by Trial				
Stimulus Items	1	2	3	Sum of 1,2,& 3	Overall Rank (Smallest sum is #1)
New Item					

Student:_____ Classroom: _____ Assessed By:_____

Date:_____ Time:_____

	Rank by Trial				
Stimulus Items	1	2	3	Sum of 1,2,& 3	Overall Rank (Smallest sum is #1)
New Item					

REFERENCES

Carr, J. E., Nicolson, A. C., & Higbee, T. S. (2000). Evaluation of a brief multiple-stimulus preference assessment in a naturalistic context. *Journal of Applied Behavior Analysis*, 33, 353-357.

DeLeon, I. G., & Iwata, B. A. (1996). Evaluation of a multiple-stimulus presentation format for assessing reinforcer preferences. *Journal of Applied Behavior Analysis*, 29, 519-533.

Pace, G. M., Ivancic, M. T., Edwards, G. L., Iwata, B. A., Page, T. J. (1985). Assessment of stimulus preference and reinforcer value with profoundly retarded individuals. *Journal of Applied Behavior Analysis*, 18, 249-255.

Fisher, W., Piazza, C. C., Bowman, L. G., Hagopian, L. P., Owens, J. C., & Slevin, I. (1992). A comparison of two approaches for identifying reinforcers for persons with severe profound disabilities. *Journal of Applied Behavior Analysis*, 25, 491-498.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC REPRODUCTION RELEASE

I. Document Identification:

Title: American Council on Rural Special Education
2003 Conference Proceedings
Rural Survival
March 20-22, 2003; Salt Lake City, Utah

Author: Multiple - Editor: Ronda Menlove

Corporate Source: American Council on Rural Special Education (ACRES)

Publication Date: March 2003

II. Reproduction Release:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please check one of the following three options and sign the release form.

_√_ Level 1 - Permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g. electronic) and paper copy.

___ Level 2A - Permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

___ Level 2B - Permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no option is marked, documents will be processed at Level 1.

Sign Here: "I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."

Signature: Ronda Menlove — Position: Proceedings Editor

Printed Name: Ronda Menlove, Ph.D. — Organization: ACRES

Address: 2865 Old Main Hill — Telephone No: 435-797-3911

Logan, Utah 84322-2865 — Date: 13 May 2003

III. Document Availability Information (from Non-ERIC Source)

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price per copy: Quantity price:

IV. Referral of ERIC to Copyright/Reproduction Rights Holder:

If the right to grant this reproduction release is held by someone other than the addressee, please complete the following:

Name:

Address:

V. Attach this form to the document being submitted and send both to:

Velma Mitchell, Acquisitions Coordinator
ERIC Clearinghouse on Rural Education and Small Schools
P.O. Box 1348
1031 Quarrier Street
Charleston, WV 25325-1348

Phone and electronic mail numbers:

800-624-9120 (Clearinghouse toll-free number)
304-347-0467 (Clearinghouse FAX number)
mitchelv@ael.org